Author Index—1991

Abdel-Dayem, H, 138(ab)
Abel, W, 120(ab)
Abrams, DN, 102(le)
Ackermann, R, 125(ab)
Afriyie, M, 120(ab), 124(ab)
Alavi, A, 104
Alazraki, N, 121(ab)
Alexander, MS, 87
Allen, ML, 220, 118(ab)
Ament, ME, 123(ab)
Argenyi, EE, 216
Arroyo, AJ, 173

Barnes, D, 77
Barnes, WE, 70
Barnett, J, 125(ab)
Bartlett, ME, 228
Bataille, G, 125(ab)
Battisti, CM, 123(ab)
Bavaria, G, 90
Baxter, KG, 220
Becker, DP, 134(ab)
Bell, SD, 29
Beller, GA, 119(ab)
Berman, DS, 63
Bernstein, R, 120(ab), 121(ab)
Bialczak, D, 155
Bice, AN, 121(ab)
Bietendorf, J, 63
Billinghurst, MW, 102(le)
Billingsley, JD, 147
Black, KL, 134(ab)
Blend, MJ, 104
Boshko, L, 124(ab)
Bouillon, R, 125(ab)
Boyce, TM, 203
Brandenburg, S, 83, 134(ab)
Braunstein, P, 81
Bridges, JA, 51, 53, 106, 190, 245, 249
Broich, K, 104
Brown, BM, 122(ab)
Brown, ML, 176, 117(ab)
Buchman, AL, 123(ab)
Bushnell, DL, 70

Caluser, C, 138(ab)
Carlson, C, 123(ab), 134(ab)
Carretta, R, 117(ab)
Cassel, D, 133(ab)
Castronovo, FP Jr, 182
Charkes, ND, 124(ab)
Cheng, KT, 122(ab)
Cherico, V, 124(ab)
Choi, Y, 123(ab)
Chowdhury, S, 118(ab)
Christian, PE, 238
Chrys, RA, 81
Cianci, ML, 143, 122(ab)
Civelek, AC, 136(ab)
Cizek, GJ, 245
Clark, MW, 31
Clarke, HS, 168
Clay, PL, 180
Coates, DM, 120(ab), 135(ab)
Cochran, AJ, 115(ab)
Cole, LA, 136(ab)
Coleman, RE, 164, 120(ab), 135(ab)
Conway, J, 124(ab)
Conway, JJ, 1
Cooper, D, 224
Corning, P, 116(ab), 117(ab)
Costa, DC, 33
Coupland, D, 94
Cox, T, 185
Cunningham, P, 116(ab)
Curry, JL, 185

Dailey, MF, 120(ab), 135(ab)
Datz, FL, 238
Davies, RA, 119(ab)
Dean, J, 116(ab), 117(ab)
Dean, M, 116(ab), 117(ab)
Decorah, M, 136(ab)
DeLaney, ML, 117(ab), 122(ab), 124(ab)
De Roo, M, 125(ab)
Dew, VD, 135(ab)
Dewanjee, MK, 118(ab)
Dillon, M, 83
Dubovsky, EV, 147
Dudkiewicz, J, 116(ab), 117(ab)
Dunn, WL, 133(ab)
Duquesnes, M, 125(ab)
Durack, LD, 121(ab)
Durski, K, 136(ab)

Eary, JF, 121(ab)
Eastman, G, 70
Edwards, W, 122(ab)
Eklem, M, 228
Ell, PJ, 33
Ellert, ES, 134(ab)
Ellis, J, 125(ab)
Elta, G, 125(ab)
Emerick, T, 134(ab)
Errico, DJ, 115(ab)
Everett, J, 124(ab)

Fahev, FH, 123(ab)
Faulkner, DB, 5
Featherstone, M, 117(ab)
Feldkamp, MJ, 50(le), 220, 118(ab)
Fiers, D, 136(ab)
Fink, D, 121(ab)
Fink, L, 155
Folks, R, 63, 119(ab)
Fortenbery, EJ, 161
Friedman, K, 4, 62

Gabor, FV, 238
Gagnon, A, 90
Galantowicz, P, 116(ab), 117(ab)
Galt, J, 121(ab)
Garcia, E, 63, 119(ab), 121(ab)
Gaskill, M, 137(ab)
Gelman, R, 87
Genart, Th, 125(ab)
Ghosh, PR, 3, 61, 109
Gilbert, S, 228
Goldsmith, SJ, 117(ab), 122(ab), 124(ab)
Golightly, D, 155
Gona, J, 116(ab), 117(ab)
Gordon, L, 123(ab)
Graves, JM, 236
Gross, K, 83, 134(ab)
Gross, MD, 125(ab)
Gross, ML, 168
Guidry, GW, 203
Gulenchyn, KY, 119(ab)
Gullberg, GT, 238
Gupta, BK, 168

Hamblen, SM, 164, 120(ab), 135(ab)
Hammes, R, 232, 137(ab)
Hanson, PC, 116(ab)
Harkness, BA, 123(ab)
Harolds, J, 224
Harris, CC, 164, 120(ab), 135(ab)
Harris, JM, 120(ab)
Hart, JW, 117(ab), 124(ab)
Hatahet, MA, 121(ab)
Hawk, TC, 120(ab), 135(ab)
Hawkins, RA, 123(ab), 134(ab)
Hayostek, RJ, 117(ab)
Hays, JT, 115(ab)
Heaton, JA, 185
Hendel, RC, 133(ab)
Henderson, BL, 29
Heo, J, 133(ab)
Herold, T, 118(ab)
Hiam, J, 193, 200
Hicklin, OA, 123(ab)
Hixson J, 203
Hoffman, JM, 135(ab)
Hoffman, KG, 137(ab)
Hoh, C, 123(ab)
Hoh, CK, 134(ab)
Holder, LE, 136(ab)
Hornu, CHGH, 125(ab)
Hovey-Andersen, R, 137(ab)
Huda, A, 134(ab)
Huggett, SM, 33
Hung, JC, 176, 118(ab), 121(ab), 122(ab)
Huston, AS, 136(ab)

Iles, S, 77
Imhoff, J, 137(ab)
Intenzo, CM, 134(ab)
Iskandrian, AS, 133(ab)
Ivanovic, M, 134(ab)

Jackson, SA, 77
Janssens, J, 125(ab)
Jara, BJ, 36
Jenkins, D, 118(ab)
Jennings, R, 138(ab)
John, CS, 122(ab)
Johnson, CL, 185
Jones, M, 121(ab)
Julin, C, 232
Juni, JE, 120(ab), 121(ab)

Kaila, PK, 120(ab)
Kappes, R, 124(ab)
Karalasingam, L, 118(ab)
Kearfott, KJ, 5
Kelly, MC, 185
Kiat, H, 63
Kies, S, 232
Kim, SM, 134(ab)
Klosinski, D, 137(ab)
Knight, LC, 124(ab)
Koblenski, D, 232
Korth, L, 137(ab)
Kostakoglu, L, 138(ab)
Krishnamurthy, GT, 228
Krishnamurthy, S, 228
Kvols, LK, 117(ab)

Lacy, CL, 185
Landmeier, BJ, 134(ab)
Langan, J, 136(ab)
Larson, SM, 138(ab)
Leisure, GP, 134(ab)
Lentle, BC, 94
Leppo, JA, 133(ab)
Léveillé, J, 90
Lind, L, 137(ab)
Logan, KW, 137(ab)

Maddahi, J, 63
Maddens, M, 121(ab)
Madsen, MT, 216
Magoun, S, 83, 134(ab)
Mahmarian, JJ, 203, 115(ab)
Maizels, M, 124(ab)
Majmundar, H, 81
Malekian, T, 117(ab)
Manning, RG, 5
Marciano, D, 123(ab), 134(ab)
Martin, RH, 77
Martin, V, 224
Matin, P, 117(ab)
Mattera, JA, 115(ab)
Maurer, AH, 124(ab)
Mazziotta, JC, 134(ab)
McAfee, JG, 122(ab)
McCormick, G, 136(ab)
McFarland, S, 224
McSherry, BA, 22, 133(ab)
Middendorf, ME, 185
Miraldi, F, 134(ab)
Mohr, WW, 220, 118(ab)
Moll, T, 133(ab)
Morton, KA, 238
Mountz, JM, 120(ab)
Muls, E, 125(ab)
Mundy, WM, 44
Murphy, JH, 116(ab)
Myerson, MS, 136(ab)

Nagel, M, 59
Nally, JV, 168
Need, JL, 135(ab)
Nelson, AD, 134(ab)
Newlin, N, 125(ab)
Nickerson, R, 77
Nimalaraj, T, 33
Norby, EH, 161
Novtizky, D, 224
Nuechterlein, PM, 120(ab), 121(ab)

O'Connor, MK, 117(ab)
Olive, WH, 137(ab)
Oswald, WM, 121(ab), 122(ab)

Palestro, CJ, 117(ab), 122(ab), 124(ab)
Park, CH, 134(ab)
Patel, J, 134(ab)
Pauly, R, 124(ab)
Peeters, T, 125(ab)
Peters, AM, 29
Petitte, B, 155
Petry, NA, 116(ab)
Plankey, MW, 31
Plasmeier, D, 133(ab)
Poelling, RE, 137(ab)
Ponto, JA, 236
Ponto, RA, 120(ab)
Potvin, WJ, 168
Pounds, B, 52, 105
Preslar, JS, 216

Preston, DF, 220, 118(ab)
Price, D, 187

Reba, RC, 122(ab)
Redlinski, L, 116(ab), 117(ab)
Reilley, JJ, 104
Riccobono, XJ, 168
Ripley SD, 118(ab)
Robbins, KM, 185
Robinson, RG, 220, 1118(ab)
Rodriguez, A, 116(ab)
Rowe, B, 136(ab), 137(ab)
Roy, L, 63
Royal, HD, 116(ab)
Ruddy, T, 119(ab)
Ruddy, TD, 116(ab), 119(ab)
Russell, CD, 147
Russell, JK, 116(ab)
Ryals, LA, 228
Ryo, UY, 83, 120(ab)

Saari, MA, 115(ab)
Sacker, DF, 134(ab)
Sarkar, S, 124(ab)
Sarlos, S, 119(ab)
Sawyer, N, 137(ab)
Schutz-Ferino, C, 185
Schwaiger, M, 116(ab)
Schwartz, J, 136(ab)
Seitz, J, 121(ab)
Shih, WJ, 83, 134(ab)
Shryock, M, 120(ab)
Silverman, L, 192, 250
Simpson, B, 119(ab)
Smith, C, 116(ab), 119(ab)
Smith, WH, 119(ab), 124(ab)
Sobczak, M., 119(ab)
Sodano, MJ, 99
Sorandes, TP, 87
Spackman, J, 228
Spicer, J, 50(le)
Spies, SM, 210, 123(ab)
Spies, WG, 123(ab)
Stipp, V, 83, 134(ab)
Strashun, A, 120(ab), 124(ab)
Strickland, MD, 31
Stuttle, AWJ, 29
Sucharski, L, 116(ab)

Taillefer, R, 90
Taliaferro, C, 50(le)
Tall, J, 122(ab)
Thorson, L, 118(ab)
Trost Price, T, 137(ab)
Tulchinsky, M, 116(ab)

Urbain, JL, 125(ab)

Van Cauteren, J, 125(ab)
Vancutsem, E, 125(ab)
Vandenmaegdenbergh, V, 125(ab)
Van Train, K, 63
Vantrappen, G, 125(ab)
Varma, VM, 122(ab)
Verani, MS, 203, 115(ab)
Vitti, RA, 124(ab)

Wackers, FJTh, 115(ab)
Wahl, R, 125(ab)
Wahner, HW, 133(ab)
Waller, M, 116(ab), 117(ab)
Ward, J, 125(ab)
Watson, DD, 119(ab)
Webber, DI, 123(ab)
Weber, DA, 134(ab)
Webner, PJ, 122(ab)
Weinstein, H, 133(ab)
Weiss, S, 199, 124(ab)
Wells, D, 144
Wenk, P, 137(ab)
Wierzbinski, B, 83, 134(ab)
Williams, C, 188, 248
Williams, J, 94
Wilson, M, 137(ab)
Wilson, ME, 176, 121(ab), 122(ab)
Wilson, MW, 120(ab)
Windham, JP, 168
Wong, CTC, 134(ab)
Wynant, GE, 102(le)
Wysor, WJ, 116(ab)

Xue, FP, 122(ab)

Yeh, SDJ, 138(ab)
Yonts, S, 120(ab)
Young, D, 147
Yowell, GM, 247

Zager, L, 136(ab), 137(ab)
Zhang, J, 134(ab)
Ziessman, HA, 123(ab)
Zimmer, AM, 210, 123(ab)
Zolty, IS, 117(ab), 124(ab)
Zuhdi, N, 224

Subject Index—1991

Abdomen, one-hour Tc-99m HMPAO leukocyte scan, 118(ab)
Abscess, separation and labeling of leukocytes, two methods, 118(ab)
Absorptiometry, dual energy X-ray, acceptance testing and quality control, 133(ab)
ACD, *vs.* heparin, binding of Tc-99m, hemoglobin and red cell membrane-proteins, 118(ab)
Adenosine
cardiac imaging, 203, 209
Tl-201 SPECT, clinical value, 116(ab)
Angiotensin I, radioimmunoassay's role, patient management, 155
Anticoagulants, heparin *vs.* ACD, binding of Tc-99m, hemoglobin and red cell membrane-proteins, 118(ab)
Arthroplasty, diagnosing infection, In-111 leukocyte and Tc-99m sulfur colloid scintigraphy, 122(ab)
Artifacts
foil collimators, warning to prospective buyers, 198(ab)
kidney-transplanted patient prior to injection, 180
leg flexion, Tl-201 SPECT, 31
Attenuation correction
coefficients, brain SPECT imaging, brain phantom, 134(ab)
improved attenuator system, dose calibrator linearity testing, 121(ab)
table attenuation, supine *vs.* prone Tc-99m sestamibi SPECT, 119(ab)
Awards, 194

Back, low pain, bony abnormality, SPECT, 198(ab)
Behavior, childhood learning disorders, SPECT evaluation, 3
Bile duct, emptying diagnosis, methodology, endoscopic radionuclides, 125(ab)
Biliary dyskinesia, small rural hospital, 125(ab)
Blood, multiple sampling, improved method, determination of renal function, 124(ab)
Blood pool imaging, gated, varying threshold limits, left ventricular volumes, 119(ab)
Bolus, syringe apparatus, compared to standard method, 29
Bone
abnormality, detection and localization with SPECT, low back pain, 198(ab)
loss, quantitative evaluation, dual photon densitometry, 133(ab)
marrow or, metastatic spread, nanocolloid imaging, 33
metastasis, strontium-89, palliation of pain, 117(ab)
scans, extraosseous metastases, urine contamination, 87
scans in operating room, technical considerations, 136(ab)
Tc-99m HMDP SPECT, volume rendering, 3-dimensional display, 134(ab)
Book reviews
Imaging of the Thyroid and Parathyroid Glands: A Practical Guide, 104
Invisible Human Body: An Atlas of Sectional Anatomy, The, 187
Nuclear Medicine Procedure Manual, 247
Positron Emission Tomography in Clinical Research and Clinical Diagnosis, 104
Quality Assurance Resource Manual for Nuclear Medicine, 51
Bowel, localization of gastrointestinal bleeding, *ex vivo* intraoperative imaging, 124(ab)
Brain
cerebral perfusion imaging, clinical PET, O-15 water, 135(ab)
imaging, comparison of IMP and HMPAO, SPECT, 70
patterns of uptake, Tc-99m HMPAO and I-123 iofetamine, dual isotope brain SPECT, 121(ab)
SPECT
difficulties with motion artifacts, 120(ab)
use of phantom, attenuation coefficients, 134(ab)
transmission computed tomographic scans, SPECT and, unique reference system, 120(ab)
tumor imaging, Tl-201 SPECT, correlation with x-ray CT studies, 134(ab)

CA-15-3, CA-125 and, radioimmunoassay's role, patient management, 155
Camera, technique, comparison, Tc-99m MAG3 and I-131 OIH ERPF, 173
Carcinoma, bronchogenic, Tl-201 chloride lung imaging, 83
Chondrosarcoma, extra-skeletal myxoid, Tc-99m DTPA uptake, 161
Chromatography
miniaturized, quality control procedures, newer radiopharmaceuticals, 210, 215
single-strip, quality control procedure, purity of Tc-99m Ceretec, 123(ab)
thin layer, quantitative analysis, gamma camera, 137(ab)
Collimators, foil, warning to prospective buyers, 198(ab)
Computed tomography, X-ray, correlation with Tl-201 SPECT, brain imaging, 134(ab)
Computer-assisted diagnosis, cardiac perfusion studies, 238
Computer software, hepatic functional parameters, reproducibility, Tc-99m mebrofenin, 228
Coronary artery disease (CAD)
optimized protocol for detection, Tc-99m sestamibi, 63
suspected, dobutamine Tl-201 tomography, 115(ab)
Creatinine, estimated clearance, glomerular filtration rate, total parenteral nutrition, 123(ab)

Densitometry, dual photon, quantitative evaluation, bone loss, 133(ab)
Digoxin, radioimmunoassay's role, patient management, 155
DMSA, SPECT, differential function, renal imaging, 123(ab)
Dobutamine, Tl-201 tomography, suspected coronary artery disease, 115(ab)
Dose calibrators, linearity testing, 122(ab)
improved attenuator system, 121(ab)
Dosimetry, considerations for technologists, Tc-99m DTPA aerosol, pulmonary ventilation, 117(ab)

Ejection fraction
determination in patients with enlarged left ventricle, technical considerations, 116(ab)
first pass left, gated list mode technique, Tc-99m myocardial perfusion agents, 115(ab)
global and regional left ventricular, factors of variability, radionuclide evaluation, 77
left, estimation, gated Tc-99m isonitrile myocardial perfusion images, 116(ab)
Endoscopy, radionuclides, methodology, biliary emptying diagnosis, 125(ab)
Esophagus, emptying, patient positioning, semi-solid bolus test meal, 125(ab)
Ethics, nuclear medicine technology, 48
Exercise, treadmill test, excessive rate of complications, Tc-99m teboroxime, 198(ab)

Feet, reflex sympathetic dystrophy, clinical and scintigraphic criteria, 136(ab)
Ferritin, radioimmunassay's role, patient management, 155

Gallbladder, biliary dyskinesia, small rural hospital, 125(ab)
Gamma camera
pulse pile-up resolving electronics, count rate capability comparison, Tc-99m and I-131, 121(ab)
thin layer chromatography, quantitative analysis, 137(ab)
Gastric emptying
acquisition and processing, single LAO view, 124(ab)
body habitus, imaging orientation, radiolabeled meal, 124(ab)
half-time clearance, dynamic and static images, 136(ab)
Gastrointestinal system
localization of bleeding, *ex vivo* intraoperative imaging, 124(ab)
motilin's effect on distal and proximal stomach, 125(ab)
scintigraphy, principles and applications, children, 36
Glomerular filtration rate (GFR)
estimated creatinine clearance and, total parenteral nutrition, 123(ab)
multiple sampling, improved method, determination of renal function, 124(ab)

Head, malaligned, neurospect, rapid detection, 120(ab)
Heart
adenosine cardiac imaging, 203, 209
left-to-right cardiac shunts, new method for determination, 216
motion detection and correction program, image quality, Tl-201 SPECT studies, 136(ab)
perfusion studies, computer-assisted diagnosis, 238
transplant patients, technical consideration, nuclear medicine studies, 224
Heparin, *vs.* ACD, binding of Tc-99m, hemoglobin and red cell membrane-proteins, 118(ab)
Hyperactivity, childhood learning disorders, SPECT evaluation, 3

Indium-111 leukocyte, diagnosing arthroplasty infection, 122(ab)
Indium-111 oxine, *vs.* Tc-99m HMPAO, personnel radiation dose, leukocyte labeling procedures, 236
Infection
arthroplasty, In-111 leukocyte and Tc-99m sulfur colloid scintigraphy, 122(ab)
separation and labeling of leukocytes, two methods, 118(ab)
Iodine-123 IMP
compared to Tc-99m HMPAO, brain imaging, SPECT, 70
establishment of quantitative normal file, technical aspects, SPECT brain imaging, 121(ab)
Iodine-123 iofetamine
Tc-99m HMPAO and
patterns of brain uptake, dual isotope brain SPECT, 121(ab)
simultaneous dual isotope SPECT, 120(ab)
Iodine-123 octreotide, technical aspects of scanning, 117(ab)
Iodine-131, Tc-99m and, gamma camera, count rate capability comparison, 121(ab)
Iodine-131 OIH ERPF, Tc-99m MAG3 and, comparison, camera technique, 173

Joint Commission on Accreditation of Healthcare Organizations (JCAHO), quality control, 1

Kidney
differential function of SPECT DMSA, 123(ab)
improved method for determining function, multiple sampling, 124(ab)
improved specificity, water loading, 168
Tc-99m MAG3, 124(ab)
technical procedures, use of Tc-99m MAG3, 147
transplanted patient prior to injection, artifact, 180

Learning disorders, childhood, SPECT evaluation, 3
Leg, flexion, Tl-201 SPECT artifact, 31
Leukocytes
labeling procedures, personnel radiation dose, In-111 oxine *vs.* Tc-99m HMPAO, 236
one-hour Tc-99m HMPAO scan of abdomen, 118(ab)
separation and labeling by two methods, infectious, inflammatory disease, graft infection, 118(ab)
Liver
functional parameters, reproducibility of Tc-99m mebrofenin, semi-automatic software, 228
spleen unusual scan findings, 81
Tc-99m red blood cells, volume rendering, 3-dimensional display, 134(ab)
Lung
single transplants, physiologic changes, 116(ab)
Tc-99m MAA SPECT, volume rendering, 3-dimensional display, 134(ab)
Tl-201 chloride, bronchogenic carcinoma, 83
ventilation scintigraphy, respirator-assisted patient, 117(ab)
Lymphoscintigraphy, modified sulfur colloid kit, 122(ab)

Message from the President, 52, 105, 188, 248
Metastasis
bone, strontium-89, palliation of pain, 117(ab)
extraosseous, urine contamination on bone scans, 87
Methotrexate, radioimmunoassay's role, patient management, 155
Microwave oven, heating, fast labeling, Tc-99m sestamibi, 90
Molybdenum-99, DOE considers production, 196
Monoclonal antibodies, radioimmunoassay's role, patient management, 155
Motilin, effect on distal and proximal stomach, 125(ab)
Myocardium
dual isotope imaging, Tc-99m TEBO and Tl-201, technical aspects, 133(ab)
perfusion imaging with Tc-99m teboroxime, 22
Tc-99m isonitrile, estimation, left ventricular ejection fraction, 116(ab)
Tc-99m perfusion agents, first pass LVEF, gated list mode technique, 115(ab)
uptake and clearance, Tc-99m perfusion imaging agents, protocol, 133(ab)

Nanocolloid, imaging in early bone or or marrow metastatic spread, 33
Neurospect, unsuspected head malalignment, rapid detection, 120(ab)
NMTCB Report, 53, 106, 190, 249
Nordion, shut down of NRU reactor, 110
Nuclear medicine
technical considerations, cardiac transplant patients, 224
technologists
developing and implementing a peer review, 185
technology student recruitment, initial success, joint venture, 137(ab)
Nuclear medicine technology, ethical practice, 44
Nuclear Medicine Week, 4, 111, 253
1990 Media Stars contest winners, 62, 196
Nuclear Regulatory Commission (NRC)
dose calibrator linearity testing
improved attenuator system, 121(ab)
new perspective, 122(ab)
quality management, 251
Nutrition, total parenteral, glomerular filtration rate, estimated creatinine clearance, 123(ab)

Oncology, radiological and pathological findings, Tl-201 chloride SPECT, 138(ab)
Opinions, 1, 59, 143, 199
Oxygen-15 water, clinical PET, cerebral perfusion imaging, 135(ab)

Pain
low back, bony abnormality, SPECT, 198(ab)
palliation, strontium-89, bone metastases, 117(ab)
Pediatrics
childhood learning disorders, SPECT evaluation, 3
principles and applications, gastrointestinal scintigraphy, 36
special problems in performing SPECT, 3
use of Tc-99m MAG3, 123(ab)
Positron emission tomography (PET)
clinical
cerebral perfusion imaging, O-15 water, 135(ab)
study scheduling, coordination, 164
mobile, better patient care, 61
planning a clinical center, 5
positron-emitting markers, routine data acquisition, 120(ab)
quantitation, problems in use of well-counters, 134(ab)
Posture, excessive rate of complications, Tc-99m teboroxime, exercise treadmill test, 198(ab)
Prostatic neoplasms, radioimmunoassay's role, patient management, 155

Quality control
better method, Tc-99m sestamibi, 232
procedures for newer radiopharmaceuticals, 210
team approach, 137(ab)

Radiation dose, personnel, leukocyte labeling procedures, 236
Radiation exposure, time-dependent, Tc-99m MDP patients, 182
Radioactive decay, pallet artifacts and, SPECT imaging, 220
Radioimmunoassay, role in patient management, 155
Radionuclides
endoscopic, methodology, biliary emptying diagnosis, 125(ab)
evaluation, variability, global and regional left ventricular ejection fraction, 77
injections, preventing errors, 50
Radiopharmaceuticals, quality control procedures, 210
Radiotracers
gastric emptying measurement, 124(ab)
variables in kinetics and biodistribution, 94
Red blood cells, binding of Tc-99m, heparin *vs.* ACD, 118(ab)
Reflex sympathetic dystrophy, feet, clinical and scintigraphic criteria, 136(ab)
Regional wall motion, global and regional left ventricular ejection fraction, factors of variability, radionuclide evaluation, 77
Respirator-assisted patient, pulmonary ventilation scintigraphy, 117(ab)

Scatter, correction for dual isotope imaging, Tl-201 and Tc-99m, 119(ab)
Scintigraphy
gastrointestinal, principles and applications, children, 36
In-111 leukocyte and Tc-99m sulfur colloid, diagnosing arthroplasty infection, 122(ab)
reflex sympathetic dystrophy in the feet, 136(ab)
Shunt, left-to-right cardiac, new method for determination, 216
Single-photon emission computed tomography (SPECT)
adenosine Tl-201, clinical value, 116(ab)
brain, use of brain phantom, attenuation coefficients, 134(ab)
childhood learning disorders, 3
clinical usefulness of cine display, reprojected data, 134(ab)
comparison of I-123 IMP and Tc-99m HMPAO, brain imaging, 70
detection and localization, bony abnormality, low back pain, 198(ab)
difficulties with motion artifacts, brain, 120(ab)
DMSA, differential function, renal imaging, 123(ab)
four-head
advantages, 109
challenges in imaging market, 109
disadvantages and future outlook, 110
gated blood pool tomography, varying threshold limits, slice selection on left ventricular volumes, 119(ab)
I-123 IMP, quantitative normal file, technical aspects of establishment, 121(ab)
quantitative, reconstruction error, self-attenuation of Tc-99m, 119(ab)
radioactive decay and pallet artifacts, 118(ab), 220
simultaneous dual isotope, Tc-99m HMPAO and I-123 iofetamine, 120(ab)
special problems with children, 3
supine *vs.* prone Tc-99m sestamibi, table attenuation, 119(ab)

Tc-99m HMPAO and I-123 iofetamine, patterns of brain uptake, 121(ab)
Tl-201
artifact, leg flexion, 31
heart motion detection and correction, image quality, 136(ab)
Tl-201 chloride, oncological problems, radiological and pathological findings, 138(ab)
transmission computed tomographic brain scans and, correlation, unique reference system, 120(ab)
volume rendering in 3-dimensional display, 134(ab)
Spleen-liver, unusual scan findings, 81
Stomach, distal and proximal, effect of motilin, 125(ab)
Strontium-89, palliation of pain, bone metastases, 117(ab)
Sulfur colloid, modified kit, lymphoscintigraphy, 122(ab)
Syringe, bolus appartus, compared to standard method, 29

Task analysis, foundation for a valid examination, 245
Technetium-99m
binding to hemoglobin and red cell membrane-proteins, heparin *vs.* ACD, 118(ab)
I-131 and, gamma camera, count rate capability comparison, 121(ab)
myocardial perfusion agents, first pass LVEF, gated list mode technique, 115(ab)
perfusion imaging agents, myocardial uptake and clearance, protocol, 133(ab)
radioactive decay and pallet artifacts, SPECT imaging, 220
self-attenuation, reconstruction error, quantitative SPECT, 119(ab)
Tl-201 and, scatter correction, dual isotope imaging, 119(ab)
Technetium-99m albumin colloid, liver-spleen SPECT, volume rendering, 3-dimensional display, 134(ab)
Technetium-99m Ceretec, assessment of purity, single-strip chromatography quality control procedure, 123(ab)
Technetium-99m DISIDA, Tc-99m GHA cold unit doses and, kinetic study of stability, 122(ab)
Technetium-99m DTPA, uptake in extra-skeletal myxoid chondrosarcoma, 161
Technetium-99m DTPA aerosol, dosimetric considerations for technologists, pulmonary ventilation, 117(ab)
Technetium-99m GHA, Tc-99m DISIDA and, kinetic study of stability, 122(ab)
Technetium-99m HMDP, bone SPECT, volume rendering, 3-dimensional display, 134(ab)
Technetium-99m HMPAO
compared to I-123 IMP, brain imaging, SPECT, 70
I-123 iofetamine and
patterns of brain uptake, dual isotope brain SPECT, 121(ab)
simultaneous dual isotope SPECT, 120(ab)
one-hour leukocyte scan of abdomen, 118(ab)
stereoisomers of HMPAO, *versus* primary and secondary forms, 102(le)
vs. In-111 oxine, personnel radiation dose, leukocyte labeling procedures, 236
Technetium-99m isonitrile, myocardial perfusion images, estimation, left ventricular ejection fraction, 116(ab)
Technetium-99m MAA, lung SPECT, volume rendering, 3-dimensional display, 134(ab)
Technetium-99m MAG3
ERPF standard counting, no sample dilution, 137(ab)
I-131 OIH ERPF and, comparison, camera technique, 173
rapid preparation and quality control, 176
renal functioning imaging, 124(ab)
technical procedures, 147
use in pediatric patients, 123(ab)
Technetium-99m MDP
bolus syringe apparatus, compared to standard method, 29
time-dependent radiation exposure, 182
Technetium-99m mebrofenin, reproducibility, hepatic functional parameters, semi-automatic software, 228
Technetium-99m red blood cells
ex vivo intraoperative imaging, localization, gastrointestinal bleeding, 124(ab)
liver SPECT, volume rendering, 3-dimensional display, 134(ab)
problems with labeling, 50
Technetium-99m sestamibi
better method of quality control, 232
detection of coronary artery disease, optimized protocol, 63
fast labeling, microwave oven heating, 90
supine *vs.* prone, SPECT in normals, table attenuation, 119(ab)
Technetium-99m sulfur colloid
diagnosing arthroplasty infection, 122(ab)
unusual liver-spleen scan findings, 81
Technetium-99m teboroxime
excessive rate of complications, exercise treadmill test, 198(ab)
Tl-201, dual isotope myocardial imaging, technical aspects, 133(ab)
myocardial perfusion imaging, 22
Technologist News, 3, 4, 56, 61, 62, 108, 109, 110, 111, 144, 192, 193, 194, 195, 196, 200, 202, 250, 251, 252, 253
Technologists
continuing education, 102(le)
essentials and guidelines, 250
international group organization, 200
job network, 55, 107, 197, 253
Technologist Section, 38th Annual Meeting, 112
guidelines on interventional pharmacologics, 202
public education and professional enhancement, 252
recruitment drive, 252
Thallium-201
chloride applications, oncological problems, radiological and pathological findings, 138(ab)
dobutamine tomography, suspected coronary artery disease, 115(ab)
SPECT
adenosine, clinical value, 116(ab)
artifact, leg flexion, 31
heart motion detection and correction, image quality, 136(ab)
SPECT for brain imaging, correlation, x-ray CT studies, 134(ab)
Tc-99m and, scatter correction, dual isotope imaging, 119(ab)
Tc-99m TEBO and, dual isotope myocardial imaging, technical aspects, 133(ab)
technical considerations, nuclear medicine studies, cardiac transplant patients, 224
Thallium-201 chloride, lung imaging, bronchogenic carcinoma, 83
Thyroid, radioimmunoassay's role, patient management, 155
Transplantation, single lung, physiologic changes, 116(ab)

Urine, contamination, extraosseous metastases, bone scans, 87

Ventilation
pulmonary, dosimetry, Tc-99m DTPA aerosol, 117(ab)
pulmonary scintigraphy, respirator-assisted patient, 117(ab)
Ventricular function
left
determination of ejection fraction, technical considerations, 116(ab)
global and regional ejection fraction, radionuclide evaluation, 77
varying threshold limits, gated blood pool tomography, 119(ab)

Water, loading, improved specificity, renal imaging, 168
Work unit compensation, plan for nuclear medicine, 99